

REMARKS

Claims **1, 3-10, 12-18 and 29, 30, and 32-37** remain pending in the instant application. Claims 1-18 and 29-37 presently stand rejected. Claims 1, 3, 10, 12, 29, 32, 33, and 35 are amended herein. Claims 2, 11, and 31 are cancelled herein without prejudice. Entry of this amendment and reconsideration of the pending claims are respectfully requested.

Specification

Paragraph [0036] of the Specification has been amended to cure an inadvertent typographical error. The correction is believed to introduce no new matter.

Claim Rejections – 35 U.S.C. § 102

Claims 1-6, 8-15, 17-18, 29-35, and 37 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Datta (US 6,081,890).

A claim is anticipated only if each and every element of the claim is found in a single reference. M.P.E.P. § 2131 (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (Fed. Cir. 1987)). “The identical invention must be shown in as complete detail as is contained in the claim.” M.P.E.P. § 2131 (citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226 (Fed. Cir. 1989)).

Claim 1, as amended, recites in pertinent part, “...wherein invoking the at least one legacy type ISR includes transitioning from the native mode runtime to a legacy mode runtime ***in response to the legacy type hardware IRQ*** to service the legacy type hardware IRQ...” Datta fails to disclose transitioning to a legacy mode runtime ***in response to a legacy type hardware IRQ***.

In the Advisory Action mailed October 31, 2006, the Examiner maintained the instant rejections stating that Applicants’ amendment and arguments do not place the application in condition for allowance. However, the Examiner has rejected independent claims 1, 10, and 29 based on Datta. The Datta reference simply does not teach all elements of claim 1, as required under M.P.E.P. §2131. In particular, Examiner states that Datta discloses transitioning from native mode to legacy mode runtime. However,

this interpretation fails to account for Applicants' expressly recited limitation that the transition from native mode to legacy mode runtime is *in response to a legacy type hardware IRQ*. Datta fails to mention transitioning to a legacy mode runtime *in response to the legacy type hardware IRQ* anywhere within its specification.

As illustrated in Applicants' FIG. 2, legacy type hardware IRQ 205 is received while operating in the native mode runtime. As discussed in Applicants' previous responses, prior art systems mask this interrupt event off (and therefore not even receive it) until such time as the processor synchronously transitions to the legacy mode runtime or even just ignore it. In contrast, embodiments disclosed by Applicants will transition to the legacy mode runtime *specifically in response to receiving the legacy type IRQ while operating in the native mode runtime*. In one embodiment, this is accomplished via global interrupt handler 379. The global interrupt handler 379 will call down to the corresponding legacy type ISR, at this point processor 305 will transition to the legacy mode runtime, and the legacy type ISR will "service" the legacy type hardware IRQ.

In the Advisory Action, mailed 10/31/2006, Examiner cites to Datta, col. 7, lines 18-43, as one example of Datta transitioning from native mode runtime to legacy mode runtime. Applicants' representative has carefully read this cited portion of Datta and respectfully asserts that it fails to disclose transitioning to a legacy mode runtime *in response to a legacy type IRQ*. Instead, Datta states "When a hardware interrupt occurs, processor control reverts to native mode (IA-64), and the native mode firmware determines if the interrupt handler is legacy firmware code." Datta, col. 7, lines 27-30. Since, Datta *reverts* to native mode, it is obvious that Datta was already *in* legacy mode when it received the hardware interrupt, which is naturally the way the prior art systems received hardware interrupts (i.e., during legacy mode runtime only). Thus, not only does Datta fail to disclose transitioning to a legacy mode runtime *in response to the legacy type hardware IRQ* it also fails to disclose receiving a legacy type hardware interrupt request *during* a native mode runtime of the processor, as recited by Applicants' amended claim 1.

Since Datta discloses receiving hardware interrupts during a legacy mode runtime, it clearly fails to disclose transitioning from the native mode runtime to a legacy mode runtime *in response to receiving a legacy type hardware IRQ*. Thus, Datta fails

to disclose each and every element of claim 1, as required under M.P.E.P. § 2131. Independent claims 10 and 29, as amended, include similar novel elements as independent claim 1. Accordingly, Applicants request that the instant §102 rejections of claims 1, 10 and 29 be withdrawn.

Claim 29

Independent claim 29, as amended, is further novel over Datta, in addition to the reasons discussed above in connection with amended claim 1. Amended claim 29 recites, in pertinent part, "...an interrupt controller coupled to the processor, the interrupt controller for receiving a hardware interrupt request ("IRQ") including at least one of a native hardware IRQ or a legacy hardware IRQ, wherein the hardware IRQ is received during at least one of a legacy mode runtime or a native mode runtime..." Applicants respectfully present that Datta fails to disclose an interrupt controller capable of receiving a native hardware IRQ and a legacy hardware IRQ. Furthermore, Datta also fails to disclose an interrupt controller capable of receiving a legacy hardware IRQ during a native mode runtime. Instead, the cited portion of Datta (col. 7, lines 18-43) only discusses receiving a legacy hardware IRQ during a legacy mode runtime. Thus, claim 29 is novel over Datta for at least these additional reasons.

Claim Rejections – 35 U.S.C. § 103

Dependent claims 7, 13 and 36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Datta. These and the other remaining dependent claims are novel and nonobvious over the prior art of record for at least the same reasons as discussed above in connection with their respective independent claims, in addition to adding further limitations of their own. Accordingly, Applicants respectfully request that the instant §102 and §103 rejections of the dependent claims also be withdrawn.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants believe the applicable rejections have been overcome and all claims remaining in the application are presently in condition for allowance. Accordingly, favorable consideration and a Notice

of Allowance are earnestly solicited. The Examiner is invited to telephone the undersigned representative at (206) 292-8600 if the Examiner believes that an interview might be useful for any reason.

CHARGE DEPOSIT ACCOUNT

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a). Any fees required therefore are hereby authorized to be charged to Deposit Account No. 02-2666. Please credit any overpayment to the same deposit account.

Respectfully submitted,

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